

# San Joaquin Record

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## **Delta levee fix boosts critical habitat Wildlife already making comeback along groundbreaking Twitchell Island project**

By Jim Nickles, staff writer

RIO VISTA -- Two goals of the CALFED Bay-Delta Program -- strengthening the Delta's critical levee network and improving wildlife habitat -- are often in conflict.

In the past, many flood-control officials believed you had to sacrifice habitat -- trees, shrubs, marshland -- in order to strengthen a levee.

And wildlife agencies have been accused of holding up much-needed levee repairs in order to protect endangered plants and animals.

But those goals don't have to collide, state officials said Friday.

They unveiled a \$3 million levee-repair project on Twitchell Island that both increases habitat and provides a higher level of protection from floods.

They hope the lessons can be applied throughout the Delta, the flood-prone hub of California's water network but also an ecological crossroads.

"It's a very new way of doing things," said Patrick Foy, a spokesman for the state Department of Fish and Game, which worked with the state Department of Water Resources in devising the wildlife-friendly levees.

CALFED, the joint state and federal effort to bring peace to California's water wars, is expected to spend billions of dollars over the next several years on a long list of projects to repair the Delta and enhance the state's water supplies. Those projects will include both habitat restoration and levee strengthening.

The levees that shield the 3,500-acre Twitchell Island from the San Joaquin River are among the most important -- and most vulnerable -- in the Delta.

By protecting the island from floods, they also keep salt water in Suisun Marsh and San Francisco Bay from rushing into the interior of the Delta, imperiling much of the state's drinking and irrigation water.

At Twitchell Island, the San Joaquin River is a good half-mile wide near its confluence with the Sacramento River, and high tides and winds can send 5-foot waves crashing over the levee.

Only frantic flood fights, with heavy equipment and tons of rock, saved the island in 1995, 1997 and 1998, officials said.

"This was one of the worst levees in the Delta," said Curt Schmutte, chief of the water department's Delta levee program. "It almost flooded in 1997. ... We had small boats being blown over the top of the levee."

But rather than just attempt to rebuild the levee with even more dirt and rock, flood-control officials decided to try something new. A 1996 law, AB 360, called for a "net habitat improvement" when levees are repaired.

Work crews hired by the water department pushed a 3,000-foot stretch of levee back 70 feet from the river itself. Between the new levee and the channel, they left the remains of the old levee, now just a low berm, and a shallow slough.

The berm has been planted with a variety of trees and plants -- oaks, cottonwoods, elderberry bushes and box elders. If Mother Nature does her thing -- with a little help from a drip irrigation system -- the berm will be covered in forest within a few years.

The slough, meanwhile, will soon be a tule-choked marsh -- perfect for endangered fish, giant garter snakes, otters, pond turtles and other wildlife.

"We've talked about setback levees for years," said Ed Littrell, an environmental specialist with the state Department of Fish and Game. "This is the first one I've ever seen."

Wildlife is already making itself at home.

Littrell pointed out tiny fish in the slough, and the berm has been marked by otter droppings and a nest full of tiny bird's eggs, possibly of a killdeer.

Unfortunately, most of the Delta's levee districts are perennially strapped for cash. They have a hard enough time maintaining levees, let alone building better habitat.

That's where the state has come in. Schmutte said his department has pumped \$150 million into the Delta's levees in the past decade, and a draft CALFED master plan released this week calls for spending another \$450 million improving levee integrity.

"This is a very expensive undertaking," said consulting engineer Chris Neudeck, who works for the Twitchell Island reclamation district. "Would we have undertaken this work on our own? Not necessarily."#